

# COOPERATION BETWEEN THE RESCUE AND FIRE BRIGADE CORPS AND THE MEDICAL RESCUE SERVICE REPRESENTING A BASIS FOR AN EFFECTIVE INTEGRATED RESCUE SYSTEM IN THE SLOVAK REPUBLIC

## COOPÉRATION ENTRE SERVICES D'INCENDIE ET DE SECOURS ET SERVICES MÉDICAUX COMME BASE D'UN SERVICE DE SECOURS INTÉGRÉ EN SLOVAQUIE

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**SUMMARY.** The aim of this paper is to identify the legislative basis referring to the position and activities of the Rescue and Fire Brigade Corps, the Medical Rescue Service and the Voluntary Municipal Fire Brigade in Slovakia. The paper deals with the results of an analysis based on a questionnaire research focusing on cooperation between professional and voluntary fire brigades and the Medical Rescue Service during common interventions. The research includes answers from 97 respondents. The analysis shows that cooperation between the afore-mentioned rescue units is in general good, however it has some shortcomings and problems, such as poor communication and insufficient common training. In favour of improving cooperation, members of the rescue units recommend not only frequent tactical training focusing on particular situations, but also professional training and other similar common meetings.

**Keywords:** fire and rescue system, medical rescue service, cooperation, improvement

**RÉSUMÉ.** Le but de cet article est d'évaluer l'état de la législation concernant le positionnement et les activités du corps des sapeurs-pompiers professionnels, du service médical d'urgence et des sapeurs-pompiers volontaires municipaux en Slovaquie. Il se base sur l'analyse d'un questionnaire évaluant la coopération entre ces trois entités lors des interventions courantes, auquel ont répondu 97 personnes. Cette coopération est globalement bonne mais il existe quelques difficultés dans la communication et concernant une formation commune insuffisante. Dans ce but, les intervenants proposent non seulement des exercices communs ciblés mais aussi des sessions d'entraînement et des congrès mixtes.

**Mots-clés :** service d'incendie et de secours, service médical d'urgence, coopération, amélioration

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## Introduction

Solving various demanding situations in many organisations has to be preceded by the process of decision making on the part of crisis management. In general, crisis management represents a complicated sphere, whose basic tasks consist in preventing or minimizing the loss of property and human lives in extraordinary situations.<sup>1</sup> Crisis management primarily deals with the whole management process in the case of severe conditions primarily consisting in financial loss (as a result of poor or stopped business activities)<sup>2</sup> and represents an interdisciplinary science generally dealing with crisis phenomena, including persons, institutions and procedures concerning the protection of lives, health, persons, property and environment. This form of management can be characterized in three views: 1. an institutional view; 2. a functional view and 3. a theoretical view.<sup>3,4,5</sup>

Members of the executive unit of crisis management must be able to fulfil tasks in compliance with the high level of professional activities. The tasks represent not only simple manual activities based on physical power and manual skills, but also tasks requesting special university education. That is why, in the case of a critical situation, professional workers can be represented by members of rescue services, specialized organisations, armed forces etc., just like non-professional workers, i.e. volunteers and those who have been entrusted with a particular duty on the basis of an individual law to carry out their duties in institutions and executive units in favour of fulfilling individual tasks. In the case of fire brigades, such a group of rescue units involves voluntary municipal fire brigades as well.<sup>3,6,7</sup> The basic executive instrument of crisis management consists of rescue units forming the Integrated Rescue System (IRS). The Integrated Rescue System coordinates its units in educating and in assisting during extraordinary situations.<sup>8</sup> The effectiveness of the Integrated Rescue System consists in high quality technical equipment, well-educated personnel and a functioning mechanism in favour of coordinating the individual units.

The Integrated Rescue System is the result of the need for coordinating the individual rescue units.<sup>9</sup>

The Slovak Republic passed the respective legislation with Act No. 129/2002 on IRS (zákon č. 129/2002 o IZS). The respective legislation and the emergency line (112) in the established coordinated centres represent just the beginning of the cooperation among the individual units. Common interventions necessitate coordination, communication and harmonisation of activities, necessary elements in achieving safety and rescuing lives. All this is preceded by preparing common interventions of the several units of the Integrated Rescue System. Such a demanding activity can be supported by information systems and suitable applications in favour of making decisions,<sup>10</sup> e.g. using modern computer supported simulation instruments, i.e. applications meant for medical rescuers and firefighters, and also by using and proposing the instruments/applications in favour of creating computer software for teaching future members of the IRS.<sup>1,11,12</sup>

This paper offers the results of an analysis based on a questionnaire research dealing with identifying experience and opinions of the RaFBC, MRS and Voluntary Municipal Fire Brigades members.

## Methodology

Our research necessitated the identification of the legislation basis concerning the position and activities of the Rescue and Fire Brigade Corps, the Medical Rescue Service and the Voluntary Municipal Fire Brigades in Slovakia. Subsequently this study was created, namely on the results of the analysis and by means of a questionnaire research focusing on the cooperation of the afore-mentioned professional and voluntary fire brigades and the medical rescue service during common interventions. Our research contains the answers of 97 respondents represented by the members of the afore-mentioned rescue units.

The analysis of cooperation among the rescue units necessitates characterizing the legislation basis of the position and activities carried out in Slovakia.

### *Position of the rescue units within the Integrated Rescue System in Slovakia*

Rescue units of the Integrated Rescue System are

differentiated according to activities and extent of interventions. That is why the units are divided as follows:

- Basic rescue units
- Other rescue units
- Police force units

*Basic rescue units of the Integrated Rescue System in Slovakia:*

- Rescue and Fire Brigade Corps
- Medical Rescue Service
- Supervisory laboratories of the Civilian Protection
- Mountain Rescue Service
- Mining Rescue Service

*Other rescue units of the Integrated Rescue System in Slovakia:*

- Armed Forces of the Slovak Republic
- Voluntary Municipal Fire Brigades
- Factory Fire Brigade Units
- Factory Fire Brigades
- Supervisory workplaces following the special regulations
- Civilian Protection units
- Municipal Police
- Slovak Red Cross
- Other legal persons and natural persons providing assistance in favour of protecting life, health and property.<sup>8</sup>

#### *Rescue and Fire Brigade Corps*

The Rescue and Fire Brigade Corps cooperates with the respective bodies of other countries and with international organisations as well, mainly the International Technical Committee of Fire Preventing and Firefighting (CTIF – Comité Technique International de Prévention et d'Extinction du Feu). Assistance provided to other countries by the Rescue and Fire Brigade Corps of the SR is regulated by international contracts by which Slovakia is bound.

Main tasks following from the Rescue and Fire Brigade Corps Act:

- Fulfilling tasks of State administration within fire protection
- State fire supervision
- Putting out fires, providing assistance and carrying out rescue activities in the event of accidents,

natural disasters and other extraordinary situations, including environment protection

- Providing assistance in danger to life, health and property of both natural and legal persons
- Carrying out rescue activities requiring removal of building constructions and ice obstacles
- Guaranteeing unique application to technical requests of fire protection security
- Fulfilling tasks concerning professional education within fire protection in favour of preventive effects
- Fulfilling tasks within material and technical equipment concerning the tasks of the RaFBC.

Other tasks carried out by the Rescue and Fire Brigade Corps (RaFBC):

- Providing assistance preceding medical assistance, i.e. transporting injured and ill people in the case of fires, accidents, natural disasters and other extraordinary situations
- Emergency supplying, emergency accommodation of population and humanitarian assistance
- Disposing of the infection sources of animals
- Fulfilling tasks concerning the Integrated Rescue System, Civilian Protection, preparations in favour of the defending country, and tasks in connection with mobilization
- Fulfilling tasks of scientific-technical development within fire protection.<sup>13</sup>

#### *Voluntary Municipal Fire Brigades (VMFB):*

The Voluntary Fire Brigades fulfil tasks of the individual fire brigades, namely:

- Rescuing people in danger of fire and putting out fires
- Rescuing animals and property in danger of fire
- Carrying out rescue activities in the case of natural disasters
- Providing assistance in compliance with technical equipment and professional qualification in the case of immediate danger to life in the event of accidents (e.g. explosions) and other extraordinary situations
- Taking care of firefighting equipment, establishing professional services, namely services concerning firefighting machines and tools, anti-gas technology, radio technology
- Professional education for employees and members of the RaFBC

- Immediate familiarizing the Regional Headquarters with interventions concerning fires and rescue activities during natural disasters and other extraordinary situations
- Writing documents related to fire brigade units.<sup>14,15</sup>

### *Medical Rescue Service (MRS)*

The Medical Rescue Service provides immediate medical assistance in the case of immediate change in health condition and danger to life or some of the basic life functions; absent medical assistance could seriously endanger health, could cause immediate and/or unbearable pain or immediate behaviour changes under the influence of which a particular person(s) can represent a danger to themselves or other people. Immediate assistance also includes medical assistance provided at a birth. The basic legal regulation within providing medical rescue service is represented by the Medical Rescue Service Act of the National Assembly of the Slovak Republic No. 579/2004 Coll. as amended (zákon NR SR č. 579/2004 Z. z. o záchranej zdravotnej službe v znení neskorších predpisov). Providing basic medical service is preceded by the announcement of an emergency by the emergency dispatcher centres of the MRS and/or providers of medical care (officially allowed to provide a medical rescue service).

In Slovakia providers of medical rescue service carry out their job within the territory following the rules both of the IRS (Integrated Rescue System) and/or the emergency operation centre of the MRS.

Providers of the Medical Rescue Service are obliged to:

- secure the system in favour of continuous operating of the MRS
- create a system of controlling and coordinating personnel and medical equipment of the MRS in favour of providing continuous emergency medical service following the previous initial instructions of the dispatcher service of the MRS or the coordination centre of the IRS
- secure conditions necessary for response drivers of ambulances within one minute from the moment of receiving instructions from the coordination centre of the IRS or the dispatcher service of the MRS

- secure operation conditions of the Helicopter Emergency Medical Service in favour of an immediate flight right after receiving instructions from the coordination service of the IRS or the operation centre of the MRS
- follow instructions of the coordination centre of the IRS and the dispatcher centre of the MRS
- establish an MRS station based on the permit enabling the operation of MRS ambulances
- immediately transport a person/s to the nearest centre providing medical care if necessary
- immediately familiarize the coordination centre of the IRS or the dispatcher centre of the MRS with the finished intervention and the state of readiness of the ambulance service team for another intervention
- use a unique name for the individual stations and emergency rooms of the MRS
- ensure the wearing of protective clothing with a unique name of the MRS by its members
- make records of the individual interventions and keep them for 20 years from the time of the individual interventions.<sup>16</sup>

According to official statistics, firefighters and rescuers intervene together, especially in traffic accidents, fires, accidents, natural disasters and in various exercises.

The co-operation between Fire and Rescue Corps and Medical Rescue Service (*Fig. 1*) also consists in the professional training of firefighters, who, on the



Fig. 1 - Cooperation of Rescue Services<sup>17</sup>

basis of a contract, carry out professional internships in preparation for the exercise of a profession directly in the emergency medical service.

## Results

Our research has included the answers of the personnel of the IRS of the Slovak Republic, namely of the Rescue and Fire Brigade Corps, Medical Rescue Service and Voluntary Municipal Fire Brigades in Slovakia (*Fig. 2*). The number of respondents was 97, i.e. 77.3% men and 22.7% women. *Table I* provides information concerning the length of professional practice of the respondents with their respective rescue unit.

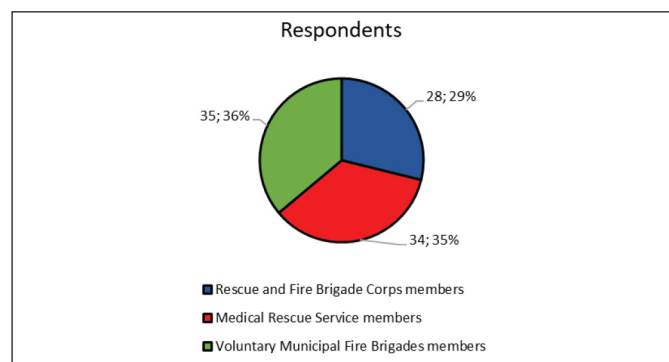


Fig. 2 – Respondents

Table I - Length of professional practice of respondents

Length of professional practice	Number of respondents	Percentage (%)
Up to 5 years	42	43.3
Up to 15 years	32	33
Above 15 years	23	23.7

On the basis of the results of our research one can allege that the most frequent interventions in cooperation with (an)other rescue unit(s) are represented by fire interventions, road traffic accidents and natural disasters (*Fig. 3*). However, members of rescue units cooperate also in the case of interventions different from the afore-mentioned ones, namely accidents of various kind, searching for missing persons, providing technical support etc.

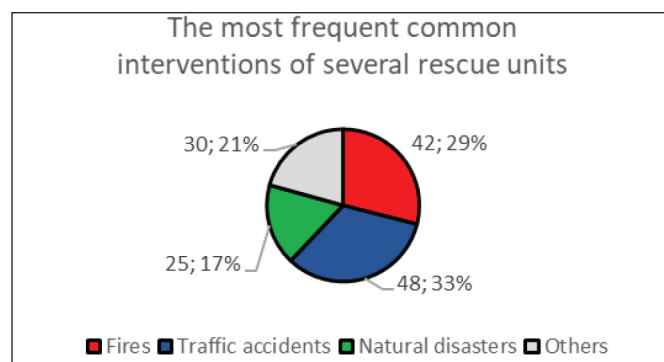


Fig. 3 - Interventions of several rescue units

Opinions of the respondents on the cooperation of the individual rescue units during common interventions are to a certain extent identical to evaluating it as a *good* one. Such an opinion is represented by 71% respondents (*Fig. 4*).

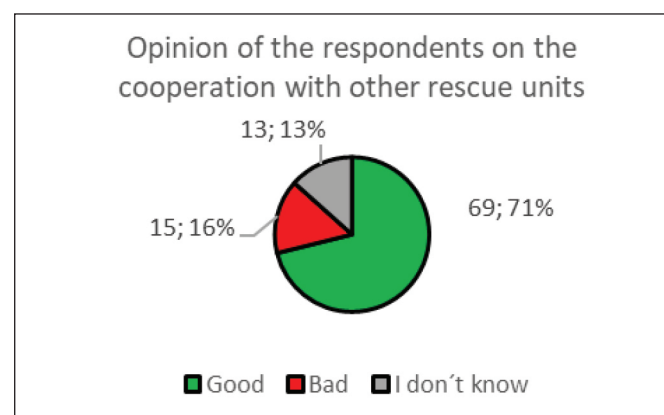


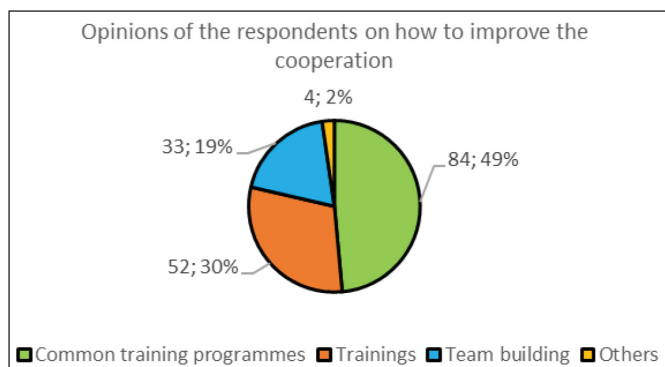
Fig. 4 - Opinion of respondents on cooperation with other rescue units

Within evaluating the cooperation with the individual rescue units, the respondents have defined not only the greatest problems and shortcomings (*Table II*) but also possibilities of how to improve cooperation during common interventions (*Fig. 5*). The most frequent problems considered by the respondents are poor communication, underestimating voluntary municipal fire brigades and/or absent common tactical training.

The results of our analysis also show the fact that 14.4% of the respondents have come across a situation where they have been limited in carrying out their intervention activities by the other IRS units: 78.4% of the respondents have not yet come across such a situation, whereas 7.2% of the respondents did not know how to answer the question.

**Table II** - Cooperation shortcomings as stated by the respondents

Cooperation shortcomings as stated by the respondents	Number of respondents	Percentage (%)
I do not know	22	22.7
Poor communication	31	32
No shortcomings	15	15.5
VMFB is not considered to be equivalent to the RaFBC	9	9.3
No common training	5	5.2
Poor experience	5	5.2
Poor familiarization with the regional operation centre	4	4.1
Insufficient information from the regional operation centre	2	2.1
Insufficient amount of personnel and equipment during interventions	1	1
Poor communication on the scene of intervention	1	1
Differences in procedures carried out by the individual IRS units	1	1
No familiarization of the field of possible interventions	1	1

**Fig. 5** - Possibilities to improve cooperation

## Conclusion

Members of the Integrated Rescue System units observe the necessity for cooperation during common interventions every day. Such cooperation occurs frequently, not only in cases of fires, but also road traffic accidents and natural disasters. Our research also shows the immense importance of cooperation among the individual units of the RaFBS, MRS and VMFB, and a place for improving their cooperation.

Possibilities for improving cooperation among the above-mentioned units can be summarized as follows:

- better communication with the individual members of the RaFBS, MRS and VMFB units
- common and tactical training with the members of the RaFBS, MRS and VMFB, focusing on particular situations and activities
- frequent common training programmes for RaFBS, MRS and VMFB members, focused on a particular part of an intervention by the individual units
- better organizing and coordinating of the individual units at the scene of intervention
- better familiarization within a particular district by the members of the coordination centres
- supplying the RaFBS, MRS and VMFB units with high quality equipment
- using modern software based simulation technology in favour of educating the IRS units
- involving virtual reality in educating and common training programmes focusing on common interventions of the several rescue units
- unification of information systems and their use, also by voluntary firefighters, e.g. ARCGIS
- common meetings of members of the individual rescue units.

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